

What is claimed is :

1. An audio menu display method of a DTV (Digital Television), comprising :

5 detecting a connection state of audio output terminals ;

getting audio source information from audio source content received from the DTV ;

determining usable audio menus for displaying on a certain screen in accordance with the connection state and audio source information ; and

10 displaying only the determined usable audio menus on the screen.

2. The audio display method of the DTV according to claim 1, wherein the audio output terminals are speaker output terminals or monitor output terminals.

15 3. The audio display method of the DTV according to claim 1, wherein the connection state is the number of speakers connected to the speaker output terminals or the number of outer amplifiers connected to the monitor output terminals.

20 4. The audio display method of the DTV according to claim 1, wherein the detecting process further comprises detecting an audio input by a user and the content of the audio source.

25 5. The audio display method of the DTV according to claim 4,

wherein the audio input is varied in accordance with channel alternation of the user.

6. The audio display method of the DTV according to claim 4,  
5 wherein the content of the audio source is a broadcast program.

7. The audio display method of the DTV according to claim 1,  
10 wherein the audio source is a satellite broadcast, a terrestrial broadcast, a digital signal, and an analog signal.

15 8. The audio display method of the DTV according to claim 7,  
wherein the audio source information is gotten by referencing program information or content of an audio stream in an ATSC or the satellite broadcast, and the digital signal is gotten by referencing the content of a digital signal stream.

10 9. The audio display method of the DTV according to claim 1,  
wherein the audio menu determining process further comprises detecting process for detecting the number of channels, whether or not a prologic encoding, existence of a subwoofer channel, existence of a multilingual service, existence of  
20 additional audio services etc. when the audio source is encoded with an AC-3.

25 10. The audio display method of the DTV according to claim 9,  
wherein the audio menu determining process further comprises detecting process for detecting whether or not stereo/mono when the audio source is not encoded with the AC-3.

11. The audio display method of the DTV according to claim 1,  
wherein the audio menu determining process is determined when the user alters a  
channel during audition or a program is changed.

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12. The audio display method of the DTV according to claim 1,  
wherein the audio menu determining process is altered whenever the user  
changes an audio input.

10 13. The audio display method of the DTV according to claim 1,  
wherein the audio menu determining process checks the number of channels and  
kind of services when the audio source is an AC-3/MPEG.

15 14. An audio menu display apparatus of a DTV for outputting video  
and audio by being inputted outer signal source, comprising :

a display for displaying video ;  
audio output terminals for outputting an audio signal to an outer speaker  
through the outer speaker or an outer amplifier ; and

20 a CPU for displaying an audio menu on the display by detecting a  
connection state of the outer speaker or outer amplifier connected to the audio  
output terminal.

25 15. The audio display apparatus of the DTV according to claim 14,  
wherein the audio output terminals comprise a speaker output terminal for  
connecting to the speaker and a monitor output terminal for connecting to the

outer amplifier.

16. The audio display apparatus of the DTV according to claim 14,  
wherein female connectors of the audio output terminals are switches having a clip  
5 form for connecting a data signal or a grounding signal mechanically.

DEUTSCHE PATENT- UND MARKEN AUSZEICHNUNG

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